a protective film over said third metal layer, said protective film leaving exposed a central portion of said third metal layer;

wherein said second metal layer is made of gold (Au), said first metal layer comprises a material that has an ionization potential lower than gold (Au), and said third metal layer comprises a material that has an adhesiveness to said protection film which is stronger than gold (Au).

REMARKS

In response to the telephone interview between Examiner Douglas Willie and Applicants' representative on March 28, 2000, Applicants respectfully submit an additional set of experimental data that specifically annotates each element of the graphs. As discussed during the personal interview on December 8, 1999 and in the Office Action Response of February 29, 2000, the submitted experimental data helps to distinguish Applicants' invention over the cited reference of Nakamura et al. (U.S. Patent No. 5,563,422) by demonstrating the inversion of the elements. In particular, Nakamura et al. discloses that "it is preferred that the annealing treatment in the present invention be conducted under a **non-oxidative** or inert atmosphere, such as nitrogen" (col. 6, lines 5-7, emphasis added). In the experimental data submitted by Applicants, the inverse distribution of nickel (Ni) and gold (Au) was examined under three conditions: a heating process with oxygen, illustrated by Figures A-1, A-2L, and A-2S; a process with no heat treatment, illustrated in Figure 3; and a process in a non-oxidative environment, illustrated by Figures A-4 and A-5.

Analyzing the inverse distribution in the depth direction as illustrated in Figures A-1, A-2L, and A-2S, nickel (Ni) and gold (Au) are inverted in the presence of heat and oxygen. When the heating process is not carried out, as illustrated in Figure A-3, or when there is no oxygen (as in Nakamura et al.) in the atmosphere, as illustrated in Figures A-4 and A-5, no

transfer of nickel (Ni) and gold (Au) can be observed. Consequently, the present invention is neither anticipated nor rendered obvious by Nakamura et al.

In addition to requesting annotated copies of the experimental data during the March 28th telephone interview, the Examiner maintained rejection of claims 1-2, 4-5, 10 and 11. Applicants appreciate the Examiners helpful suggestions for amending these claims, and independent claim 1 has been amended to incorporate the inverse distribution of elements as described in the specification. Based upon the amendment to claim 1, it and claims 2, 4-5, 10 and 11, which depend from claim 1, are all respectfully submitted as being patentable. Claims 10, 11 and 22 have been also amended to correct previous clerical errors. No new matter has been added.

Applicants respectfully submit that the application is now in condition for allowance, and a notice to that effect is earnestly solicited.

Respectfully submitted,

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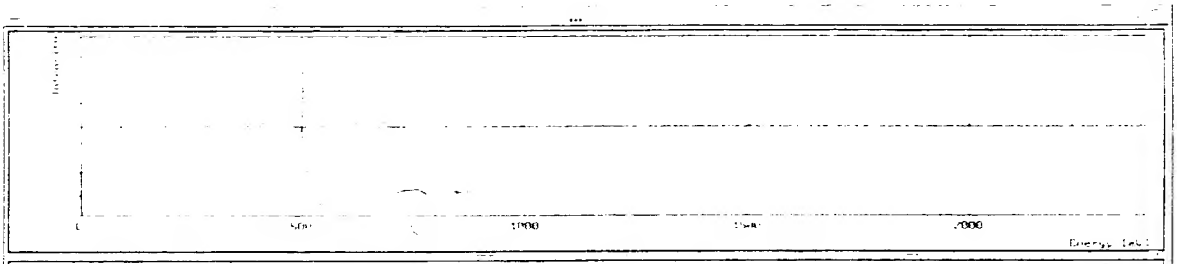
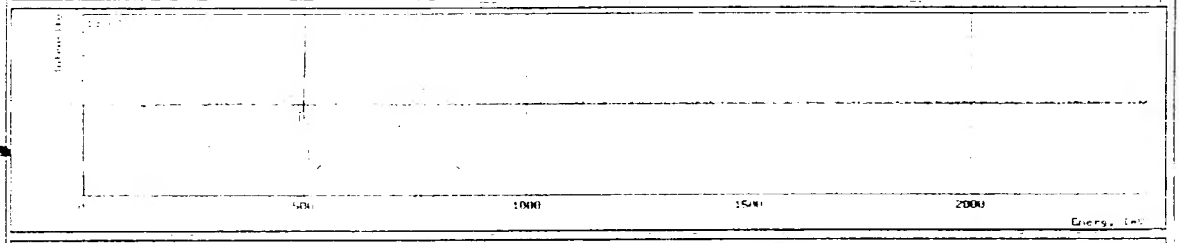
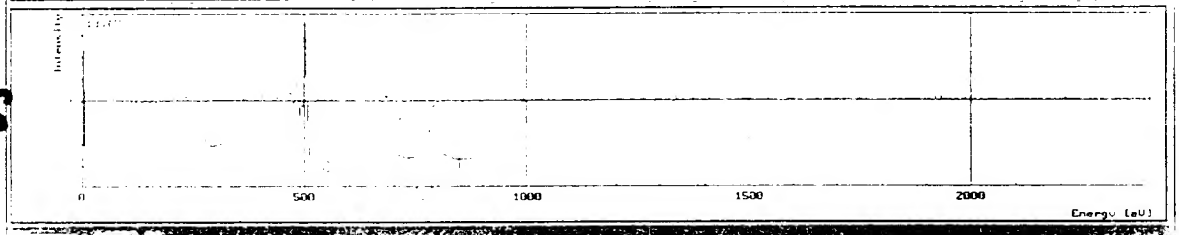
A-1

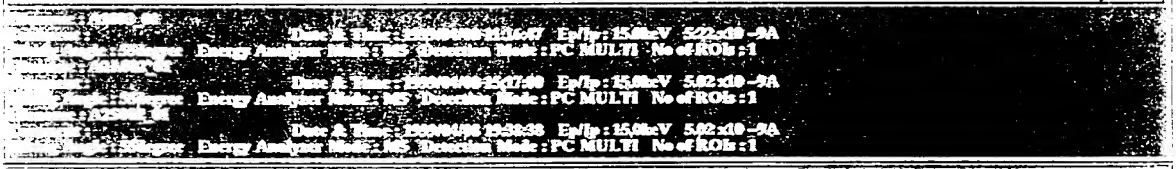


A-2L

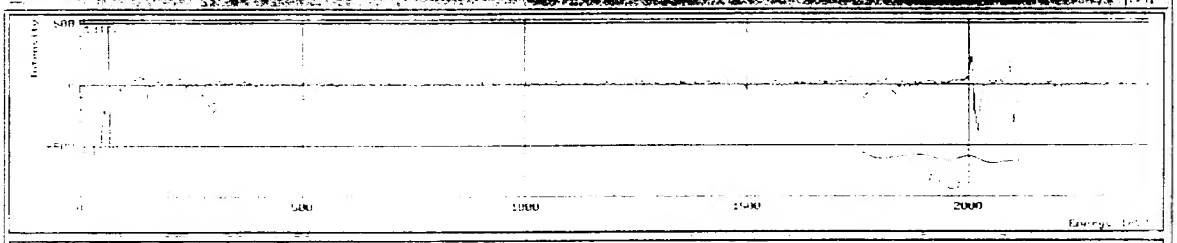


A-2S

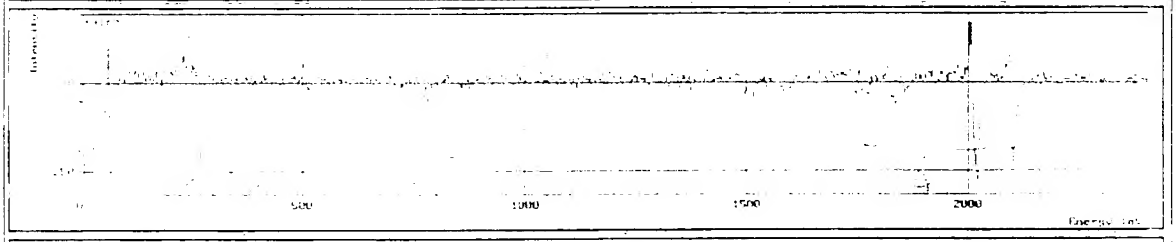




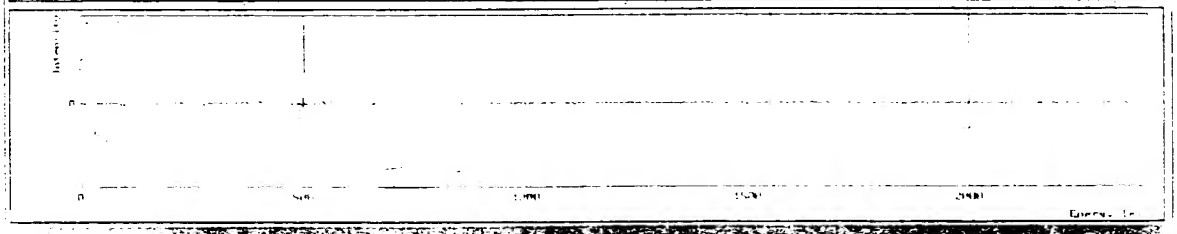
A-3

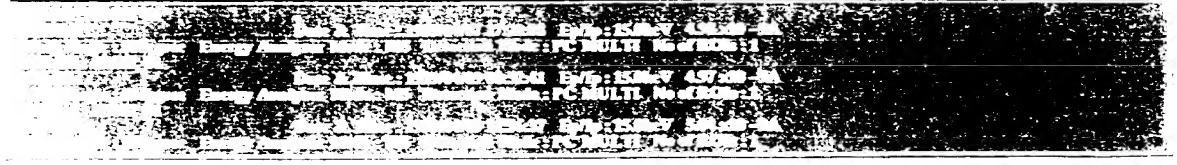


A-4



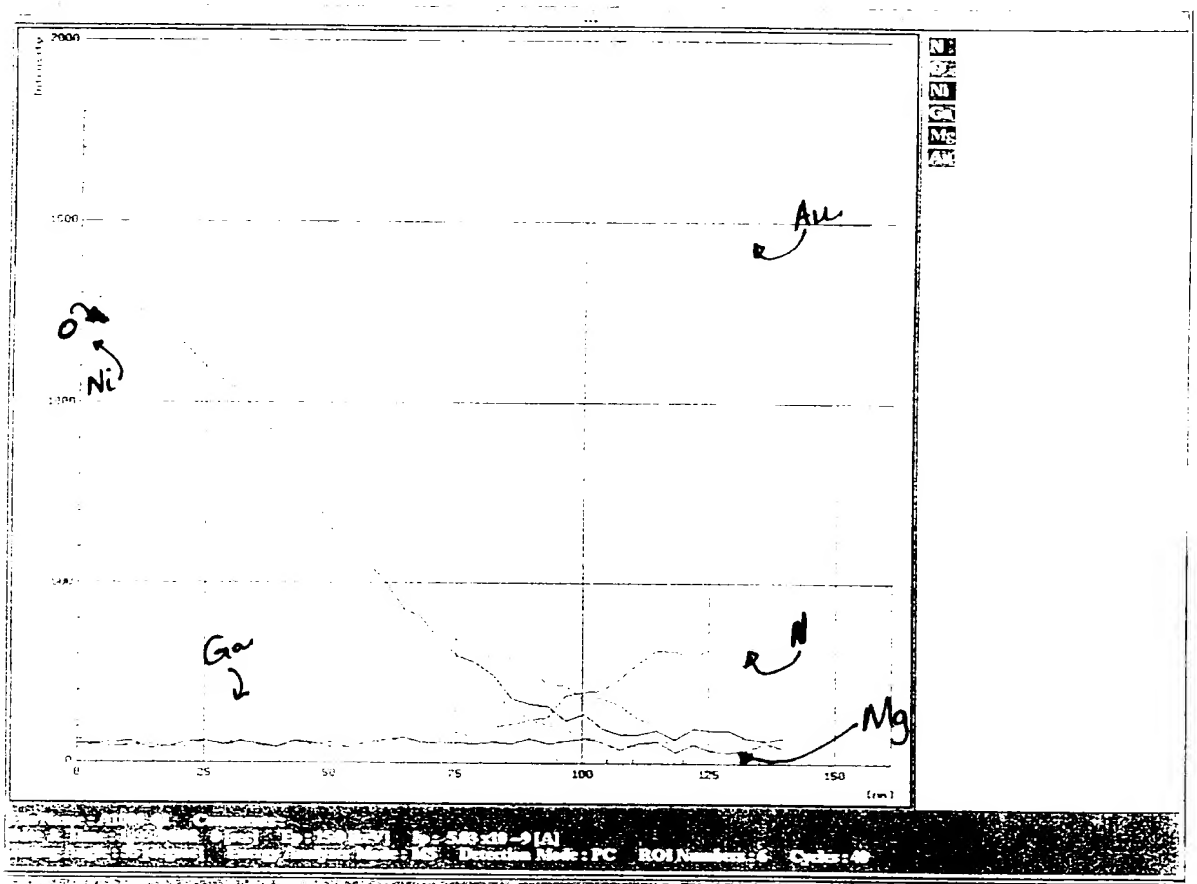
A-5





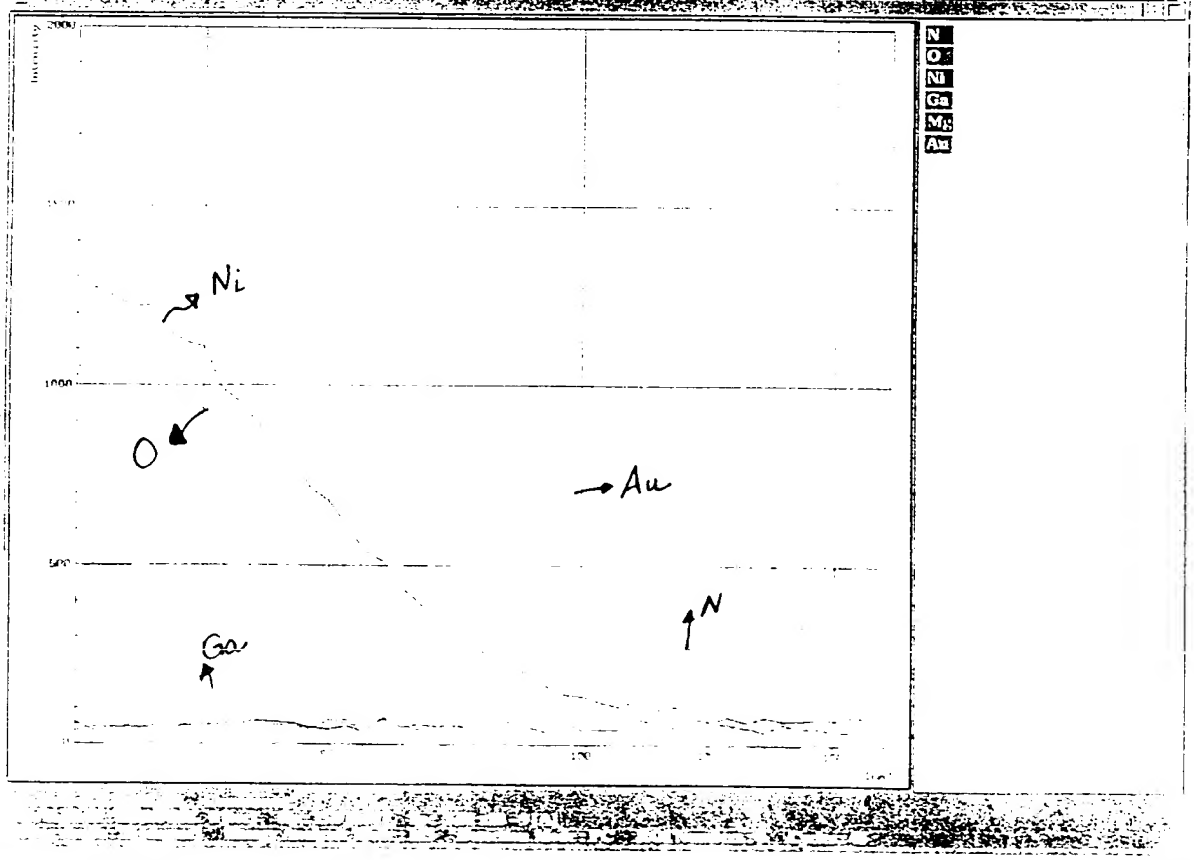
A-1

Heating Process with Oxygen

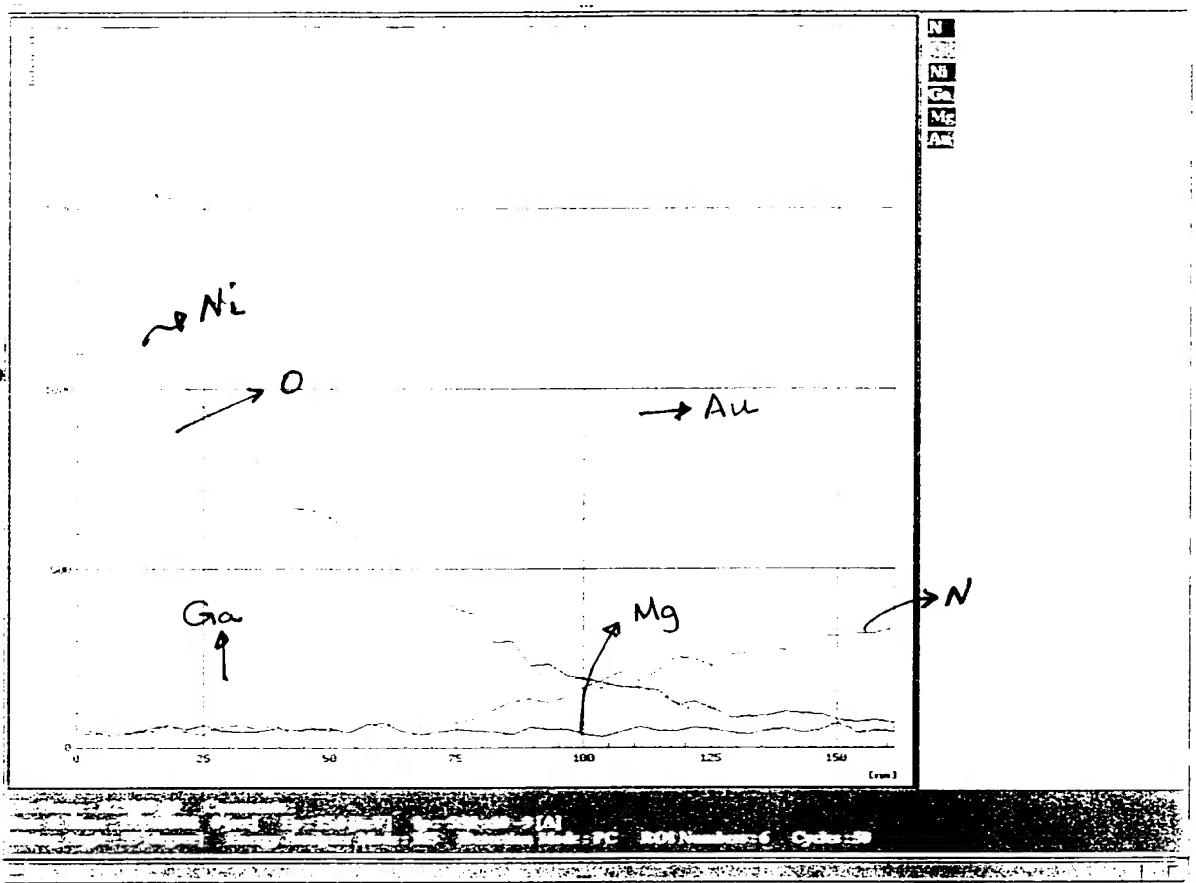


A-2.1

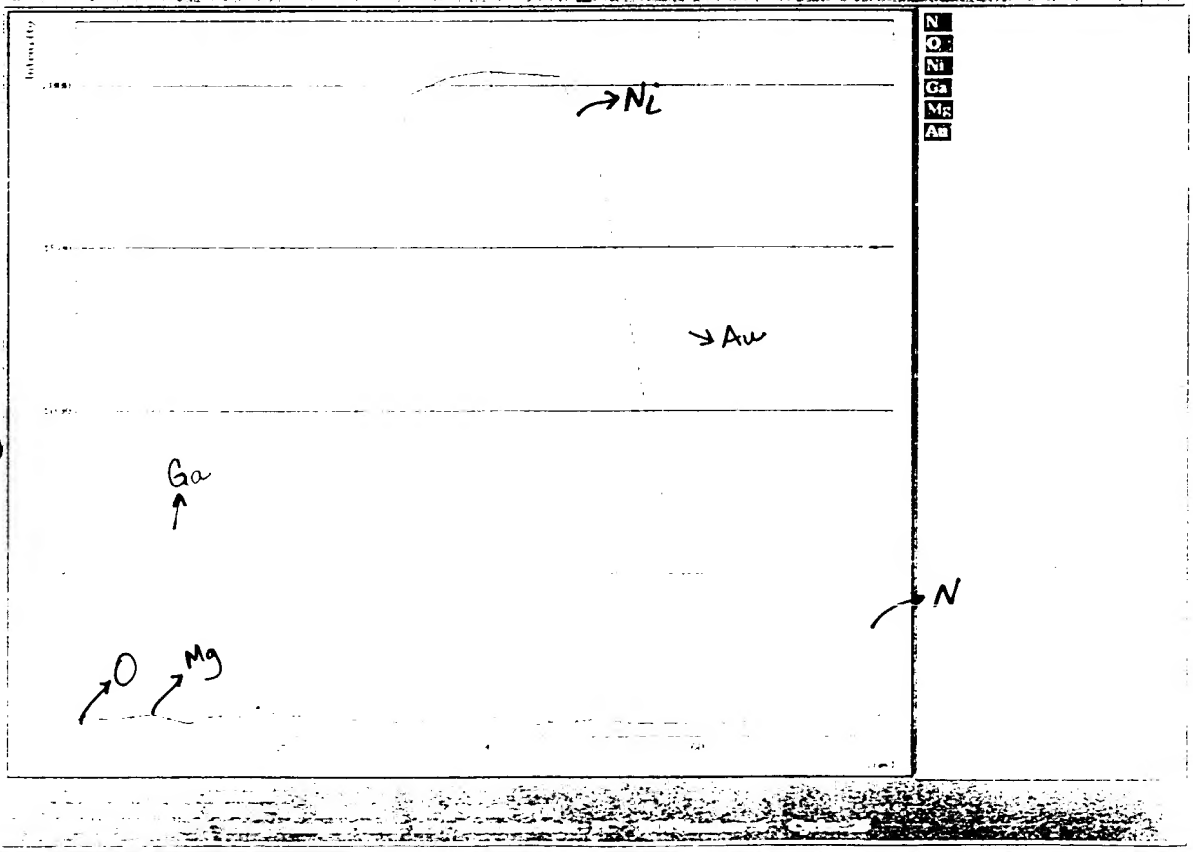
Heating Process with Oxygen



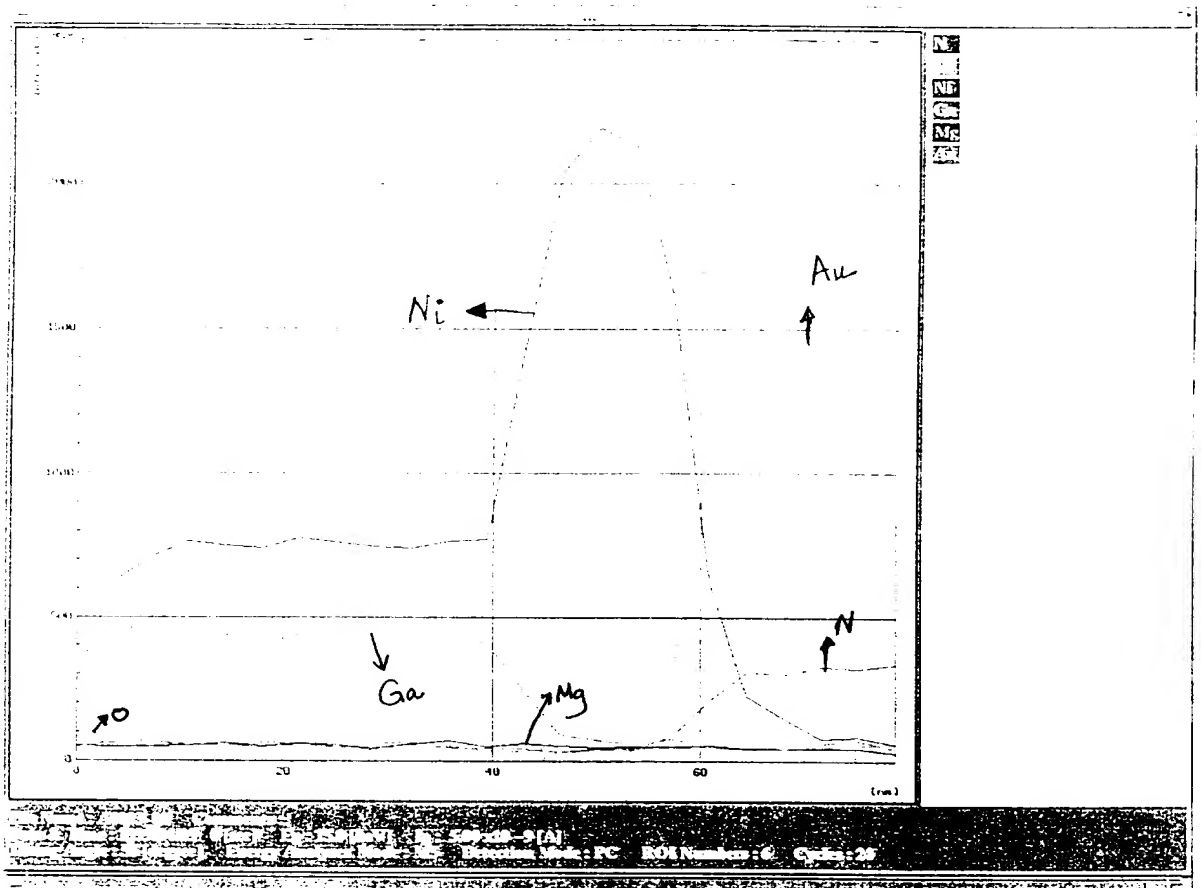
A-2S
Heating Process with Oxygen



A-3
No Heating Process



A-4



A-5